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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,835	04/13/2004	Yusuke Ishii	1081.1197	3262
21171	7590	09/06/2007		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER KANGARLOO, RAMTIN	
			ART UNIT 2609	PAPER NUMBER
			MAIL DATE 09/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/822,835

Applicant(s)

ISHII, YUSUKE

Examiner

Ramtin Kangarloo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- ! If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ✓ ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 4/13/2004.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya (US Patent Application Publication No.2004/0252633) in view of Sandstrom (US Patent No. 6697373)

Regarding **Claim 1**, Acharya disclose transmission equipment (fig .6) transmitting traffic input from a plurality of ports on the Synchronous Optical Network/Synchronous Digital Hierarchy network paths of which bandwidths are arbitrarily set by Virtual Concatenation and Link Capacity Adjustment Scheme, said transmission equipment comprising: (see Page. 1, Paragraph [0002]) an input traffic collector which collects and

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retains an input traffic amount of each input port for one period at preset periods (fig 6); a virtual concatenation controller which sets a virtual concatenation path bandwidth against the traffic input from the plurality of ports (see Page 1, Paragraph [0003]); and a link capacity adjustment scheme controller which sets and changes the virtual concatenation to the virtual concatenation controller, based on the addition command or the deletion command of the virtual concatenation member paths issued by the bandwidth set processor (see Page 1, Paragraph [0004]). Acharya does not specifically disclose a bandwidth set processor. Sandstrom teaches a bandwidth set processor which calculates a bandwidth for use in each input port from the input traffic amount retained in the input traffic collector, calculates the corresponding number of virtual concatenation member paths from the difference of the bandwidth in use and a virtual concatenation path bandwidth having been allocated to the input port, and issues an addition command or a deletion command for adding or deleting the virtual concatenation member paths for the calculated number (See Col. 2, Lines 59 – 65).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the bandwidth set processor taught by Sandstrom onto the transmission equipment as shown in Acharya, in order to control bandwidth allocation so that the systems run more efficient.

Regarding **Claim 2**, Acharya and Sandstrom disclose the limitation in claim 1.

Furthermore, Sandstrom teaches a virtual concatenation information storage which retains correspondence between each destination node of the virtual

concatenation member paths and each input port, wherein the bandwidth set processor allocates an idle virtual concatenation member path having not been allocated to any virtual concatenation paths to an input port which has the same destination node and requires increasing the virtual concatenation path bandwidth (See Col. 12, Lines 15 – 18).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the virtual concatenation information storage taught by Sandstrom onto the transmission equipment as show in Acharya, in order to manage available bandwidth so that the systems run quicker.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya (US Patent Application Publication No.2004/0252633) in view of Sandstrom (US Patent No. 6697373) as applied to claim 1 above, and further in view of MacLean (US Patent Application Publication No.2005/0073955).

Regarding **Claim 3**, Acharya and Sandstrom disclose the limitation in claim 1. Acharya and Sandstrom do not specifically disclose input port information storage with a bandwidth allocation priority and a minimum guarantee bandwidth.

MacLean teaches an input port set information storage which retains a bandwidth allocation priority and a minimum guarantee bandwidth, (see Page. 3, Paragraph [0020]) wherein, in the bandwidth set processor, (see Page. 2, Paragraph [0018]) when the addition command of a virtual concatenation member path is issued to the link capacity adjustment scheme controller, an input port having a higher priority is

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processed preferentially, (see Page. 2, Paragraph [0013]) and when the deletion command of a virtual concatenation member path is issued to the link capacity adjustment scheme controller, the issue of the deletion command is restrained so that the virtual concatenation path bandwidth may not fall below the minimum guarantee bandwidth (see Page. 1, Paragraph [0005] and see Page. 3, Paragraph [0021]) .

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the input port information storage with a bandwidth allocation priority and a minimum guarantee bandwidth taught by MacLean onto the transmission equipment as show in the system of Acharya, and Sandstrom in order to provide the minimum bandwidth and operate bandwidth priority so that the systems run more efficient.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya (US Patent Application Publication No.2004/0252633) in view of Sandstrom as applied to claim 1 above, and further in view of Kfir (US Patent Application Publication No.2004/0076176).

Regarding **Claim 4**, Acharya and Sandstrom disclose the limitation in claim 1. Acharya and Sandstrom do not specifically disclose to use a buffer to control input traffic. Kfir teach buffers (fig.1) each of which retains the input traffic correspondingly to each plurality of input ports, wherein, the preset period for collecting the input traffic amount in the input traffic amount collector is determined by calculating ratios of each

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buffer size to each maximum bandwidth for the entire plurality of input ports, and using the shortest value as the preset period (see Page. 4, Paragraph [0061]).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the buffer taught by Kfir into the transmission equipment as show in the system of Acharya, and Sandstrom in order to save the data so that the systems become well organized.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya (US Patent Application Publication No.2004/0252633) in view of Sandstrom as applied to claim 1 above, and further in view of ATRICA "Migration from SONET/SDH to Carrier Ethernet In Metropolitan Area" (Hereafter referred to as Atrica)

Regarding **Claim 5**, Acharya and Sandstrom disclose the limitation in claim1. Acharya and Sandstrom do not specifically disclose how to control underflow, where in underflow, is defined as the input port bandwidth, which falls below the virtual concatenation path bandwidth. Atrica teaches when the input port bandwidth in use falls below the virtual concatenation path bandwidth, the bandwidth set processor suspends issue of the deletion command of a virtual concatenation member path to the link capacity adjustment scheme controller for a certain time, thereby avoiding a state of failure to establish the virtual concatenation required for transmission, caused by excessive addition or deletion of the virtual concatenation member paths in the link capacity adjustment scheme in case of unstable input traffic amount (page 11, citation 3.2.3 paragraph 2)

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Thus, it would have been obvious to one having ordinary skill in the art to control underflow in a way taught by Atrica in the transmission equipment as shown in the system of Acharya, and Sandstrom, in order to save the extra bandwidth so that the systems become cost efficient.

Conclusion

7. Any response to this Office Action should be **faxed** to (571) 273-8300 or **Mailed** to :

Commissioner for Patents,
P.O.Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramtin Kangarloo whose telephone number is (571) 270-3452. The examiner can normally be reached on Monday to Thursday 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramtin Kangarloo
Examiner Art Unit 2609
August 13, 2007


BENNY Q. TIEU
SPE/TRAINER